Diagnostic and Procedure Coding for Sleep Disorders

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Introduction

Sleep medicine services include the evaluation of adult and pediatric populations for sleep disorders by performing diagnostic and treatment related procedures. The three main diagnostic manuals detailing the coding systems are International Classification of Disease (ICD) [1], International Classification of Sleep Disorders (ICSD) [2], and the Diagnostic and Statistical Manual (DSM) [3].

The main coding system for billing of services is the Current Procedural Terminology (CPT) created by the American Medical Association (AMA) for the coding of procedures [4]. This system includes clinical evaluations, diagnostic, and other procedures performed on patients. The Centers for Medicare and Medicaid (CMS) provides a standardized coding system known as the Healthcare Common Procedure Coding System (HCPCS) for describing specific items and services provided in the delivery of health care. HCPCS is necessary for reimbursements by Medicare, Medicaid, and other health insurance programs and is essentially the same coding system as the CPT. Billing for clinical sleep services and diagnostic testing coding systems will be discussed in this chapter.

Section 1: ICSD, ICD, and DSM Coding

International Classification of Sleep Disorders (ICSD-3)

The ICSD is produced by the American Academy of Sleep Medicine (AASM) with international involvement and is currently in its 3rd edition, which provides diagnostic and (ICSD-3) coding information on all major sleep disorders first half of 2014 [2].

In the, the ICSD-3 was published and its codes correlate with the codes found in Tenth Revision of the ICD, the ICD-10, which will be adopted in the USA in October 2015 (Table 31.1). It contains six main diagnostic sleep categories; insomnia, sleep related breathing disorders, hypersomnias, circadian rhythm sleep disorders, parasomnias, sleep related movement disorders.

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Table 31.1 ICSD-3 with ICD-10 correlation

ICSD-3 section	ICSD-3 disease classification	ICD-10	ICD-10 classificationa
Insomnia disorders	Chronic insomnia disorder	F51.01	Sleep disorders
	Short-term insomnia disorder	F51.02	–
	Other insomnia disorder	F51.09	–
	Isolated symptoms and normal variants: short sleeper excessive time in bed	–	–
Sleep related breathing disorders	*Obstructive sleep apnea disorders*		
	Obstructive sleep apnea, adult	G47.33	–
	Obstructive sleep apnea, pediatric	G47.33	–
	Central sleep apnea syndromes		
	Primary central sleep apnea	G47.31	–
	Central sleep apnea with Cheyne–Stokes breathing	R06.3	Cheyne–Stokes breathing
	Central sleep apnea due to a medical disorder without Cheyne–Stokes breathing	G47.37	Central sleep apnea in conditions classified elsewhere
	Central sleep apnea due to high-altitude periodic breathing	G47.32	High altitude periodic breathing
	Central sleep apnea due to medication or substance	G47.39	Central sleep apnea in conditions classified elsewhere
	Primary central sleep apnea	G47.31	Primary sleep apnea of newborn
	Primary central sleep apnea of infancy	P28.3	–
	Primary central sleep apnea of prematurity	P28.4	Primary sleep apnea of newborn
	Treatment-emergent central sleep apnea	G47.39	–
	Complex sleep apnea	G47.39	Sleep apnea, unspecifiedb
	Sleep related hypoventilation disorders		
	Idiopathic central alveolar hypoventilation	G47.34	Idiopathic sleep related non-obstructive alveolar hypoventilation
	Obesity hypoventilation disorder	E66.2	Pickwickian; Morbid (severe) obesity with alveolar hypoventilation
	Congenital central alveolar hypoventilation	G47.35	–
	Late onset central hypoventilation with hypothalamic dysfunction	G47.36	Sleep related hypoventilation in conditions classified elsewhere
	Central hypoventilation due to a medication or substance	G47.36	Sleep related hypoventilation in conditions classified elsewhere
	Sleep related hypoventilation due to medical disorder	G47.36	Sleep related hypoventilation in conditions classified elsewhere
	Sleep related hypoxemia	G47.36	–
	Isolated symptoms/normal variants		
	Snoring	R06.83	–
	Catathrenia	G47.50	Parasomnia, unspecifiedb

(continued)

Table 31.1 (continued)

ICSD-3 section	ICSD-3 disease classification	ICD-10	ICD-10 classificationa
Hypersomnolence disorders	Narcolepsy type 1	G47.411	Narcolepsy with cataplexy
	Narcolepsy type 2	G47.419	Narcolepsy without cataplexy
	Idiopathic hypersomnia	G47.11	–
	Kleine–Levin syndrome	G47.13	Recurrent hypersomnia
	Hypersomnia due to a medical disorder	G47.14	–
	Hypersomnia due to a medication or substance	F11–F19	Hypersomnia, unspecified
	Insufficient Sleep Syndrome	F51.12	–
	Hypersomnia associated with a psychiatric disorder	F51.13	–
	Isolated symptoms and normal variants: long sleeper	G47.11	Idiopathic hypersomnia with long sleep time
Circadian rhythm sleep–wake disorders	Delayed sleep–wake phase disorder	G47.21	–
	Advanced sleep–wake phase disorder	G47.22	–
	Non-24-h sleep–wake rhythm disorder	G47.24	Free running type
	Irregular sleep–wake rhythm disorder	G47.23	–
	Jet lag disorder	G47.25	–
	Shift work disorder	G47.26	–
	Circadian rhythm sleep–wake disorder not otherwise specified	G47.29	Other circadian rhythm sleep disorder
Movement disorders	Restless legs syndrome	G25.81	–
	Periodic limb movement disorder	G47.61	–
	Sleep related leg cramps	G47.62	–
	Sleep related bruxism	G47.63	–
	Sleep related rhythmic movement disorder	G47.69	Other sleep related movement disorders
	Sleep related movement disorder, unspecified	G47.69	Other sleep related movement disorders
	Sleep related movement disorder due to a medication or substance	G25.69	Other sleep related movement disorders
	Sleep related movement disorder due to medical disorder	G47.69	Other sleep related movement disorders
	Benign sleep myoclonus of infancy	G47.69	Other sleep related movement disorders
	Propriospinal myoclonus at sleep onset	G47.69	Other sleep related movement disorders
	Isolated symptoms and normal variants		
	Excessive fragmentary myoclonus	G47.69	Other sleep related movement disorders
	Hypnagogic foot tremor and alternating leg muscle activation during sleep	G47.69	Other sleep related movement disorders
	Sleep starts (hypnic jerks)	G47.69	Other sleep related movement disorders[b]

(continued)

Table 31.1 (continued)

ICSD-3 section	ICSD-3 disease classification	ICD-10	ICD-10 classificationa
Parasomnias	*NREM-related parasomnias*		
	Disorders of arousal		
	Confusional arousals	G47.59	–
	Sleep walking	F51.3	–
	Sleep terrors	F51.4	–
	Sleep-related eating disorder	G47.59	Other parasomnia
	Parasomnias usually associated with REM sleep		
	REM sleep behavior disorder	G47.52	–
	Recurrent isolated sleep paralysis	G47.53	–
	Nightmare disorder	F51.5	–
	Other parasomnias		
	Exploding head syndrome	G47.59	Other parasomnia
	Sleep related hallucinations	R44.3	Hallucinations, unspecified
	Sleep enuresis	N39.44	Nocturnal enuresis
	Parasomnia due to a medical disorder	G47.54	–
	Parasomnia due to a medication or substance	F11–F19	–
	Parasomnia, unspecified	G47.50	–
	Isolated symptoms and normal variants		
	Sleep talking	F51.8	Other sleep disorders not due to a substance or known physiological condition[b]

[a]ICD-10 classification same as ICSD-3 disease classification except when identified here
[b]No exact classification match (Adapted from the AASM International Classification of Sleep Disorders-Version 3)

International Classification of Diseases, Ninth Revision (ICD-9)

The ICD-9 of the World Health Organization is the basis for the currently used USA version, the ICD-9-CM (International Classification of Diseases, Ninth Revision, Clinical Modification [5]). The ICD-9-CM is the official USA coding system for surgical, diagnostic, and therapeutic procedures and has a more detailed listing of disorders than the ICD-9. The modifications made to the coding system are governed by the National Center for Health Statistics (NCHS) and the CMS.

The ICD-9-CM, which contains more than 17,000 codes, is used for reimbursement, resource allocation, quality and guidelines. The sleep related ICD-9-CM disorders and corresponding codes are interspersed among four chapters, namely, mental disorders, disease of the nervous system and sense organs, symptoms, signs, and ill-defined conditions, and persons encountering health services in other circumstances (Table 31.2).

The ICD-9-CM also allows for the coding of sleep symptoms until a primary sleep disorder diagnosis is made (Table 31.3). For example, snoring (786.09) would be used until OSA (327.23) is confirmed as the primary diagnosis. According to ICD-9-CM, if a specific sleep disorder is secondary to an underlying etiological diagnosis (i.e., if it is due to a medical disorder, mental disorder, or due to a drug or substance), and then the underlying diagnosis should be

coded first. For instance, if a person has insomnia due to pain from a herniated lumbar disk, the herniated disk (722.10) is coded as the primary diagnosis and insomnia due to a medical disorder (327.01) is coded as the secondary diagnosis.

International Classification of Diseases, Tenth Revision (ICD-10)

In 1990, the 43rd World Health Assembly endorsed the International Classification of Diseases, Tenth Revision (ICD-10). The US version, ICD-10-CM, which will be adopted in October 2015, contains more than 141,000 codes and introduces new diagnoses and procedures (Table 31.4).

Diagnostic and Statistical Manual of Mental Disorders

The Diagnostic and Statistical Manual of Mental Disorders (DSM) is a classification system of recognized mental health disorders that is published by the American Psychiatric Association (APA) [3]. The 5th edition of the publication, the DSM-V, was published in May 2013 (Table 31.5).

Section 2: Current Procedural Terminology (CPT) codes

The purpose of the CPT coding system is to provide uniform coding for medical services and procedures among physicians, coders, patients, and accreditation organizations. It is also used by payers for administrative, financial, and analytical purposes. CPT coding, which is updated annually, is similar to ICD coding, except that it identifies the services rendered rather than the diagnosis. ICD codes are often required when billing for a CPT procedure [4].

Clinical Evaluations in the Outpatient Setting

Coding for outpatient clinical sleep medicine evaluations is determined by key components for new consultations, new patient visit, and established patient visits. Consultations require referrals from primary or other medical care providers; after the visit, a summary with recommendations is sent back to the referring provider. This is not necessary when coding for an initial office visit. The specific codes used are dependent on the extent of the

Table 31.2 ICD-9-CM sleep related diagnoses

ICD-9-CM chapters	Section	Subsections	ICD-9-CM codes
Mental disorders	Alcoholic psychoses	Insomnia due to substance alcohol	291.82
	Drug psychoses	Insomnia due to drugs	292.85
	Neurotic disorders	Dissociative disorder or reaction	300.15
	Special symptoms or syndromes, not elsewhere classified	Adjustment insomnia	307.41
		Psychophysiological insomnia, paradoxical insomnia, idiopathic insomnia	307.42
		Behaviorally induced insufficient sleep syndrome	307.44
		Sleepwalking	307.46
		Sleep terrors	307.46
		Nightmare disorder	307.47
		Environmental sleep disorder	307.48

(continued)

Table 31.2 (continued)

ICD-9-CM chapters	Section	Subsections	ICD-9-CM codes
Disease of the nervous system	Organic sleep disorders	*Insomnia*	
		Organic insomnia unspecified	327.00
		Insomnia due to medical condition (code first underlying condition)	327.01
		Insomnia due to mental disorder (code mental disorder first)	327.02
		Hypersomnia	
		Organic hypersomnia, unspecified	327.10
		Idiopathic hypersomnia with long sleep time	327.11
		Idiopathic hypersomnia without long sleep time	327.12
		Kleine–Levin syndrome	327.13
		Menstrual-related hypersomnia	327.13
		Hypersomnia due to medical condition (code first underlying condition)	327.14
		Hypersomnia due to mental disorder (code first mental disorder)	327.15
		Sleep related breathing	
		Organic sleep apnea, unspecified	327.20
		Primary central sleep apnea	327.21
		High-altitude periodic breathing	327.22
		Obstructive sleep apnea (adult) (pediatric)	327.23
		Idiopathic sleep-related nonobstructive alveolar hypoventilation	327.24
		Congenital central alveolar hypoventilation syndrome	327.25
		Sleep-related hypoventilation/hypoxemia in conditions classifiable elsewhere (code first underlying condition)	327.26
		Central sleep apnea in conditions classified elsewhere (code underlying condition first)	327.27
		Other organic sleep apnea	327.29
		Circadian rhythm disorders	
		Delayed sleep phase type	327.31
		Advanced sleep phase type	327.32
		Irregular sleep–wake type	327.33
		Nonentrained type (free running)	327.34
		Jet lag type	327.35
		Shift work type	327.36
		In conditions classified elsewhere (code first underlying condition)	327.37
		Other	327.39
		Parasomnia	
		Organic parasomnia, unspecified	327.40
		Confusional arousals	327.41
		REM sleep behavior disorder	327.42
		Recurrent isolated sleep paralysis	327.43
		Parasomnias in conditions classified elsewhere (code first underlying condition)	327.44
		Other organic parasomnia	327.49
		Movement related sleep disorder	
		Periodic limb movement disorder	327.51
		Sleep related leg cramps	327.52
		Sleep related bruxism	327.53
		Sleep related rhythmic movement disorder	327.59
		Sleep related movement disorder, unspecified	327.59
		Sleep related movement disorder due to drug or substance	327.59
		Sleep related movement disorder due to medical condition	327.59
		Restless legs syndrome	333.94

(continued)

Table 31.2 (continued)

ICD-9-CM chapters	Section	Subsections	ICD-9-CM codes
	Narcolepsy	Narcolepsy without cataplexy	347.0
		Narcolepsy with cataplexy	347.01
		Narcolepsy in conditions classified elsewhere (code first underlying condition)	347.1
		Narcolepsy in conditions classified elsewhere without cataplexy	347.10
		Narcolepsy in conditions classified elsewhere with cataplexy	347.11
	Visual disturbances	Sleep related hallucinations	368.16
Symptoms, signs, and ill-defined conditions	General symptoms	Insomnia not due to substance or known insomnia, unspecified	780.52
	Symptoms involving respiratory system and other chest symptoms	Cheyne–Stokes breathing pattern	786.04
	Symptoms involving urinary system	Sleep enuresis	788.36
Supplementary classification of factors influencing health status and contact with health services	Problems related to lifestyle	Behavioral insomnia of childhood	V69.5
		Inadequate sleep hygiene	V69.4

Table 31.3 ICD-9-CM Symptoms with codes and corresponding ICD-10-CM codes

Symptoms	ICD-9-CM code	ICD-10-CM code
Apnea	786.03	R06.81
Other alterations of consciousness, Drowsiness, Somnolence, Sleepiness	780.09	R40.0
Other dyspnea	786.09	R06.00
Snoring	786.09	R06.83
Other forms of dyspnea	786.09	R06.09
Other abnormalities of breathing	786.09	R06.89
Hypersomnia	780.54	G47.10
Psychophysical visual disturbances	368.16	H53.16

history and examination, medical decision-making, presenting problem, and face-to-face time in minutes. Table 31.6 depicts the required key components and the specific codes in detail.

Polysomnographic Coding

Procedure coding may involve a technical and/or professional component. Sleep services when performed in a free-standing sleep lab can be billed using a global service code (95810, without a modifier). A global service code includes both the interpretation of the sleep study by the

Table 31.4 ICD-10-CM Table of Sleep Related Diagnoses

ICD-10-CM chapters	Section	Subsections	Codes
Behavioral syndromes associated with physiological disturbances and physical factors	Sleep disorders not due to substance or known physiologic condition	Primary insomnia	F51.01
		Primary hypersomnia	F51.11
		Sleepwalking disorder	F51.3
		Sleep terror disorder	F51.4
		Nightmare disorder	F51.5
Diseases of the nervous system	Other extrapyramidal and movement disorders	Restless legs syndrome	G25.81
	Sleep disorders	*Insomnia*	G47.0
		Insomnia, unspecified	G47.00
		Insomnia due to medical condition	G47.01
		Other insomnia	G47.09
		Hypersomnia	G47.1
		Hypersomnia, unspecified	G47.10
		Idiopathic hypersomnia with long sleep time	G47.11
		Idiopathic hypersomnia without long sleep time	G47.12
		Recurrent hypersomnia	G47.13
		Hypersomnia due to medical condition	G47.14
		Other hypersomnia	G47.19
		Circadian rhythm sleep disorders	G47.2
		Circadian rhythm sleep disorder, unspecified type	G47.20
		Circadian rhythm sleep disorder, delayed sleep phase type	G47.21
		Circadian rhythm sleep disorder, advanced sleep phase type	G47.22
		Circadian rhythm sleep disorder, irregular sleep–wake type	G47.23
		Circadian rhythm sleep disorder, free running type	G47.24
		Circadian rhythm sleep disorder, jet lag type	G47.25
		Circadian rhythm sleep disorder, shift work type	G47.26
		Circadian rhythm sleep disorder in conditions classified elsewhere	G47.27
		Other circadian rhythm sleep disorder	G47.29
		Sleep apnea	G47.3
		Sleep apnea unspecified	G47.30
		Primary central sleep apnea	G47.31
		High altitude periodic breathing	G47.32
		Obstructive sleep apnea (adult) (pediatric)	G47.33
		Idiopathic sleep related non-obstructive alveolar hypoventilation	G47.34
		Congenital central alveolar hypoventilation syndrome	G47.35
		Sleep related hypoventilation in conditions classified elsewhere	G47.36
		Central sleep apnea in conditions classified elsewhere	G47.37
		Other sleep apnea	G47.39
		Narcolepsy and cataplexy	G47.4
		Narcolepsy	G47.41
		Narcolepsy with cataplexy	G47.411
		Narcolepsy without cataplexy	G47.419
		Narcolepsy in conditions classified elsewhere	G47.42
		Narcolepsy in conditions classified elsewhere with cataplexy	G47.421
		Narcolepsy in conditions classified elsewhere without cataplexy	G47.429

(continued)

Table 31.4 (continued)

ICD-10-CM chapters	Section	Subsections	Codes
		Parasomnia	G47.5
		Parasomnia unspecified	G47.50
		Confusional arousals	G47.51
		REM sleep behavior disorder	G47.52
		Recurrent isolated sleep paralysis	G47.53
		Parasomnia in conditions classified elsewhere	G47.54
		Other parasomnia	G47.59
		Sleep related movement disorders	G47.6
		Periodic limb movement disorder	G47.61
		Sleep related leg cramps	G47.62
		Sleep related bruxism	G47.63
		Other sleep related movement disorders	G47.69
		Other sleep disorders	G47.8
		Sleep disorder, unspecified	G47.9
Symptoms, signs, and abnormal clinical and laboratory findings, not elsewhere classified	Abnormalities in breathing	Unspecified abnormalities of breathing	R06.9
	Symptoms and signs involving cognition, perception, emotional state, and behavior	Somnolence	R40.0
Factors influencing health status and contact with health services	Persons encountering health services in other circumstances: Problems related to sleep lifestyle	Sleep deprivation	Z72.820

physician and the technical component, which is performed by the technician. Professional work includes the interpretation of the sleep study by the sleep physician. Alternatively, the technical and professional components can be billed separately. The professional component through a hospital-based sleep center or a free-standing lab uses a 26 modifier, i.e., CPT 95810-26. The technical component would be 95810-TC, where the -TC is added as the modifier [4].

The AMA defines a sleep center as a medical facility that has sleep specialists who evaluate and diagnose sleep disorders and usually have the capability of performing an objective polysomnographic evaluation of sleep and associated physiologic parameters. There are three types of sleep centers; hospital based, university based, and independent testing facilities that are company owned and operated, also known as free-standing sleep centers.

Sleep procedures include sleep center laboratory-based and portable procedures, which includes home sleep testing (HST) also known as out of center sleep testing (OCST). Table 31.7 shows an extensive list of various sleep studies and corresponding CPT codes. All diagnostic objective sleep evaluations include data recording, interpretation, and report generation (95800-95811).

Polysomnography (PSG) includes sleep staging by using leads recording electroencephalography (EEG), submental electromyography (EMG), and electro-oculography (EOG) activity. For more

Table 31.5 DSM-V sleep disorder diagnoses and ICD coding

Section	Sleep disorder	Sub type	ICD-9-CM	ICD-10-CM
Insomnia disorder	–	–	780.52	G47.0
Hypersomnolence disorder	–	–	780.54	G47.10
Narcolepsy	Narcolepsy without cataplexy but with hypocretin deficiency	–	347.00	G47.419
	Narcolepsy with cataplexy but without hypocretin deficiency	–	347.01	G47.411
	Autosomal dominant cerebellar ataxia deafness, and narcolepsy	–	347.00	G47.419
	Autosomal dominant narcolepsy, obesity, type 2 diabetes	–	347.00	G47.419
	Narcolepsy secondary to another medical condition	–	347.10	G47.429
Breathing related sleep disorders	Obstructive sleep apnea hypopnea	–	327.23	G47.33
	Central sleep apnea	Idiopathic central sleep apnea	327.21	G47.31
		Cheyne–Stokes breathing	786.04	R06.3
		Central sleep apnea comorbid with opioid use	780.57	G47.37
	Sleep related hypoventilation	Idiopathic hypoventilation	327.24	G47.34
		Congenital central alveolar hypoventilation	327.25	G47.35
		Comorbid sleep-related hypoventilation	327.26	G47.36
Circadian rhythm sleep–wake disorders	Delayed sleep phase type	–	307.45	G47.21
	Advanced sleep phase type	–	307.45	G47.22
	Irregular sleep-wake type	–	307.45	G47.23
	Non-24-h sleep-wake type	–	307.45	G47.24
	Shift work type	–	307.45	G47.26
	Unspecified type	–	307.45	G47.20
Parasomnias	Non-rapid eye movement sleep arousal disorders	Specify type: sleep walking	307.46	F51.3
		Sleep terror	307.46	F51.4
	Nightmare disorder	–	30.7.47	–
	Rapid eye movement sleep behavior disorder	–	327.42	–
	Restless legs syndrome	–	333.94	G47.81
Others	Other specified insomnia disorder	–	780.52	G47.09
	Unspecified insomnia disorder	–	780.52	G47.00
	Other specified hypersomnolence disorder	–	780.54	G47.19
	Unspecified hypersomnolence disorder	–	780.54	G47.10
	Other specified sleep–wake disorder	–	780.59	G47.8
	Unspecified sleep-wake disorder	–	780.59	G47.9

Table 31.6 CPT coding for clinical evaluations in the outpatient setting

CPT code	History and exam	Medical decision making	Presenting problem	Face to face time (typically in minutes)	Required key components[a]
Consult patient visit					
99241	Problem-focused	Straightforward	Self-limited or minor	10	3/3
99242	Expanded problem-focused	Straightforward	Low to moderate	20	3/3
99243	Detailed	Low	Moderate	30	3/3
99244	Comprehensive	Moderate	Moderate to high	45	3/3
99245	Comprehensive	High	Moderate to high	60	3/3
New patient visit					
99201	Problem-focused	Straightforward	Self-limited or minor	10	3/3
99202	Expanded problem-focused	Straightforward	Low to moderate	20	3/3
99203	Detailed	Low	Moderate	30	3/3
99204	Comprehensive	Moderate	Moderate to high	45	3/3
99205	Comprehensive	High	Moderate to high	60	3/3
Established patient visit					
99211	–	–	Minimal	5	0/3
99212	Problem-Focused	Straightforward	Self-limited or minor	10	2/3
99213	Expanded Problem-Focused	Low	Low to moderate	15	2/3
99214	Detailed	Moderate	Moderate to high	25	2/3
99215	Comprehensive	High	Moderate to high	40	2/3

[a]Key components are: History, Exam, and Medical Decision making

extensive billing, additional sleep parameters should be monitored such as, observations by the performing technologist, snoring intensity, body position, electrocardiogram (ECG), extended EEG (for evaluation of seizures, REM sleep behavior disorder (RBD; etc.), airflow, penile tumescence, respiratory effort, gastroesophageal (GE) reflux, gas exchange (via pulse oximetry, transcutaneous monitoring, end-tidal gas analysis), continuous blood pressure (BP) monitoring, or limb muscle activity.

Billing for sleep services is coded according to the type of procedure performed and whether there is an individual (usually the technologist) present and monitoring the study (attended versus unattended) (Table 31.8).

Portable Recording

HST is a portable sleep study that is typically done as an unattended sleep study. There are three different types of portable monitoring. Each type of portable monitoring has certain minimum requirements in order to be properly billed (Table 31.9). Type 1 is an in lab study so is billed differently (see Table 31.7). Type 2 HST requires seven parameters to be monitored, EEG (1–4 leads), EOG, and EMG, with addition to four or more additional parameters of sleep (oxygen saturation, airflow, respiratory effort, ECG). Type 3 HST requires four parameters to be monitored, commonly oxygen saturation, airflow, respiratory effort, and ECG. Type 4 HST requires three

Table 31.7 Sleep diagnostics and associated CPT code

Diagnostic test	Requirements	Attended or unattended	CPT code
No sleep staging required			
Sleep study	Simultaneous recording of heart rate, oxygen saturation, respiratory analysis, sleep time	Unattended	95800
Sleep study	Minimum heart rate, oxygen saturation, respiratory analysis	Unattended	95801
Actigraphy	Recording, analysis, interpretation, and report (minimum 72 h to 14 days)	Unattended	95803
Multiple sleep latency (MSLT)	Recording, analysis, and interpretation	Attended	95805
Maintenance of wakefulness testing (MWT)	Recording, analysis, and interpretation of physiologic measurements of sleep	Attended	95805
Sleep study	Simultaneous recording of ventilation, respiratory effort, ECG or heart rate, and oxygen saturation Require recording for 6 h or more	Unattended	95806
Sleep study	Simultaneous recording of ventilation, respiratory effort, ECG or heart rate, and oxygen saturation. Attended by technologist	Attended	95807
Requires sleep staging			
Polysomnography (PSG) (any age)	Electroencephalography (EEG) (1–4 leads), electro-oculography (EOG), and electromyography (EMG) + *1–3 other parameters of sleep*	Attended	95808
PSG (age 6 and older)	EEG (1–4 leads), EOG, and EMG + *4 or more additional parameters of sleep*	Attended	95810
PSG (age 6 and older)	EEG (1–4 leads), EOG, and EMG + *4 or more additional parameters + the initiation of CPAP or BPAP* (minimum of 2 h of sleep recorded by PSG prior to machine use)	Attended	95811
PSG (younger than 6 years of age)	EEG (1–4 leads), EOG, and EMG + *4 or more additional parameters*	Attended	95872
PSG (younger than age 6)	EEG (1–4 leads), EOG, and EMG + *4 or more additional parameters + the initiation of CPAP or BPAP* (minimum of 2 h of sleep recorded by PSG prior to machine use)	Attended	95873
Miscellaneous			
Limited service	Used when a patient is intolerant to CPAP and stops a titration polysomnogram before 6 h of recording has been completed, the procedure should be coded 95811-52	–	Modifier, −52
Screening for a diagnosis	–	–	V code

Table 31.8 Billing for sleep services with CPT codes

Who	What to bill for?	CPT code
Physicians providing services in their offices	Global service	95810, without a modifier (if greater than 6 h) 95810 with modifier; −52 (if less than 6 h of recording
Free-standing sleep centers	Owner bills for technical component (*Physician bills for professional work separately*)	95810-TC (only for technical component of bill)
Physicians interpreting diagnostic tests in hospital-based sleep centers or some free-standing centers	Professional work only	95810-26 (only for professional component of bill)

Table 31.9 CMS classification of home sleep testing and CPT and HCPCS Codes

Type	Includes	Attended	CPT Code	HCPCS
I (NOT a portable study)	7 parameters: EEG (1–4 leads), EOG, and EMG + 4 or more additional parameters of sleep (oxygen saturation, airflow, respiratory effort, ECG)	Attended in lab PSG	95810	
II	7 parameters: EEG (1–4 leads), EOG, and EMG + 4 or more additional parameters of sleep (oxygen saturation, airflow, respiratory effort, ECG)	Unattended PSG	95800	G0398
III	4 parameters: oxygen saturation, airflow, respiratory effort, ECG	Attended or Unattended	95806 (not attended) 95807 (attended)	G0399
IV	3 parameters: heart rate, oxygen saturation, airflow, respiratory analysis (peripheral arterial tone, or airflow)	Attended or Unattended	95800 (inclusion of sleep time) 95801 (exclusion of sleep time)	G0400

CPT current procedural terminology coding system, *HCPCS* the healthcare common procedure coding system

parameters to be monitored, including heart rate, oxygen saturation, airflow, and respiratory analysis (peripheral arterial tone, or airflow).

HST is used in order to determine the presence of OSA and is less expensive than an in lab sleep study. The CMS prefers HST to be ordered after a comprehensive sleep medicine evaluation with documentations of signs and symptoms of OSA [6]. The HST should be considered in patients with a high pretest probability of sleep apnea and no significant comorbidities such as neuromuscular disease, pulmonary disease, or congestive heart failure (CHF) [6]. Each HST has a corresponding HCPCS G-code (Table 31.9). Once the service gets a CPT associated code, CMS removes the G-code and uses the CPT code.

Pediatric Evaluation

AASM guidelines for sleep related breathing (SRB) disorders state that an in-lab PSG is recommended for children who have sleep disorder breathing symptoms, for determining the presence of residual OSA after surgical treatment (i.e., tonsillectomy, adenoidectomy), as well as for PAP titration.

Children less than 6 years of age should be evaluated with an in-lab attended PSG and billed with 95872 (diagnostic) or 95873 (PAP titration) codes. Children 6 years and older should be evaluated with an in-lab attended PSG and billed with 95810 (diagnostic) or 95811 (PAP titration study) codes (Table 31.7).

References

1. World Health Organization. International Classification of Diseases, Ninth Revision (ICD-10). World Health Organization, Geneva; 1992.
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6. Nelson M. Coding and billing for home (out-of-center) sleep testing. Chest. 2013;143:2.